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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/718,630      | 11/24/2003  | Hirofumi Higuchi     | 01-521              | 1287             |

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RESTON, VA 20191

EXAMINER

CHAPMAN JR, JOHN E

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2856

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/718,630

Applicant(s)

HIGUCHI, HIROFUMI



Examiner

John E. Chapman

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/24/03
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

### DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, line 1, the addition of the word "type" to an otherwise definite expression extends the scope of the expression so as to render it indefinite. *Ex parte Copenhagen*, 109 USPQ 118 (Bd. App. 1955). See MPEP 2173.05(c).

Regarding claim 1, lines 4-6, it is misdescriptive to say that the vibrator "includes ... at least one in-frame fixed portion." Rather, the in-frame fixed portion (60) is distinct from, and not part of, the vibrator (30). It is suggested that the comma after "shape" in line 5 be changed to a semi-colon, "and" in line 6 be deleted, and "at least one in-frame fixed portion" begin a new subparagraph to make this clear.

Regarding claim 1, line 18, "a back-side portion of the in-frame fixed portion" is indefinite, since no "front side" of the in-frame fixed portion is specified in the claim. Furthermore, it is not clear how it can be "located at opposite sides to the arrangement portion of the second driving electrode." There is no antecedent basis for either "the arrangement portion of the second driving electrode" or a plurality of "sides" opposite thereto. Likewise, "a back-side portion of the inner peripheral portion of the frame portion" in line 20 is indefinite, since no "front side" of the inner peripheral portion of the frame portion is specified in the claim.

Regarding claim 7, the addition of the word "type" in line 1 renders the claim indefinite.

Regarding claim 7, lines 3-7, it is misdescriptive to say that the vibrator is comprised of "at least one in-frame fixed portion." It is suggested that "and" in line 2 be deleted and a semicolon be added after "shape" in line 5.

Regarding claim 7, line 8, "a back-side portion of the in-frame fixed portion" is indefinite, since no "front side" of the in-frame fixed portion is specified in the claim. Likewise, "a back-side portion of the inner peripheral portion of the frame portion" in line 9 is indefinite.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4, 5 and 7-10, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al. (5,780,740).

Lee et al. discloses an electrostatic vibration device comprising a vibrator 100 movably equipped to a base portion 101 so as to vibrate in a predetermined direction (X), an in-frame fixed portion 108 located in an inner space surrounded by an inner peripheral portion of a frame portion (103, 104, 105) of the vibrator, a driving electrode 109 for applying electrostatic force to the vibrator, the driving electrode comprising a first driving electrode 110 and a second driving electrode 107 (see col. 9, lines 21-24). Since fingers 107 are provided on both sides of the in-frame fixed portion 108, both sides have "an unevenly shaped portion."

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Regarding claim 2, the fingers 106 that confront the fingers 107 are “unevenly shaped.”

Regarding claim 4, the fingers 106 are displaced in phase from the fingers 107.

Regarding claim 5, the fingers have a planar shape.

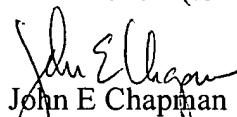
5. Claims 3 and 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Negoro et al. disclose an electrostatic vibration device comprising a vibrator 36 in Fig. 5 including a frame portion 39, and an in-frame fixed portion 48 comprising an unevenly shaped portion 43. Rodgers et al. discloses an electrostatic vibration device comprising a horizontal electrostatic shield 40 positioned to reduce an electrostatic force of attraction between a stationary electrostatic comb 12 of a first pair of electrostatic combs and a moveable electrostatic comb 14 of a second pair of electrostatic combs (col. 9, lines 57-64).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E. Chapman whose telephone number is (571) 272-2191. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John E Chapman  
Primary Examiner  
Art Unit 2856